PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE D/B/A EVERSOURCE ENERGY
2017 ENERGY SERVICE RATE CALCULATION
RATE EFFECTIVE JULY 1, 2017
(Dollars in 000s)

Summary of Forecasted Energy Service Cost For January 2017 through December 2017	TOTAL COST	Cents per KWH	Reference
Fossil energy costs	$ 24,037	$ 0.75	Attachment CJG-2, page 2
F/H O&M, depreciation & taxes	109,027	$ 3.39	Attachment CJG-2, page 2
Return on rate base	44,003	$ 1.37	Attachment CJG-2, page 2
ISO-NE ancillary	1,077	$ 0.03	Attachment CJG-2, page 2
Capacity	(23,873)	$ (0.74)	Attachment CJG-2, page 2
NH RPS	28,792	$ 0.90	Attachment CJG-2, page 2
Seabrook costs / (credits)	-	$ -	Attachment CJG-2, page 2
Vermont Yankee	5	$ 0.00	Attachment CJG-2, page 2
RGGI costs	498	$ 0.02	Attachment CJG-2, page 2
IPP costs (*)	8,889	$ 0.28	Attachment CJG-2, page 2
Burgess BioPower	35,472	$ 1.10	Attachment CJG-2, page 2
Purchases and sales	67,896	$ 2.11	Attachment CJG-2, page 2
Return on ES Deferral	272	$ 0.01	Attachment CJG-2, page 2
2016 Actual ES under recovery	14,153		
Total Updated Energy Service Cost	$ 310,250		
Total Updated Revenue	303,347		
2017 ES (Over)/Under Recovery	6,903		
Forecasted Retail MWH Sales July - December 2017	1,614,393		
Change to Energy Service Rate - cents per kwh	0.43		
Energy Service Rate as approved in DE 16-822 - cents per kwh	9.45		
Updated Energy Service Rate w/o Scrubber - cents per kwh	9.88		
Plus Scrubber ES Rate cents per kwh per DE 11-250	1.72		
Total Updated Energy Service Rate Effective 7/1/17 - cents per kwh	11.60		

(*) The IPP costs represent the forecasted market value of IPP generation.

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE D/B/A EVERSOURCE ENERGY
2017 ENERGY SERVICE RATE CALCULATION
RATE EFFECTIVE JULY 1, 2017
(Dollars in 000s)

Energy Service Cost	January 2017 Actual	February 2017 Actual	March 2017 Actual	April 2017 Estimate	May 2017 Estimate	June 2017 Estimate	Reference
Fossil energy costs	$ 3,504	$ 4,093	$ 2,128	$ 1,416	$ 1,005	$ 1,109	CJG-2, P3
F/H O&M, depreciation & taxes	9,129	7,920	8,266	12,741	9,695	8,449	CJG-2, P5
Return on rate base	3,743	3,728	3,736	3,710	3,668	3,712	CJG-2, P6
ISO-NE ancillary	315	492	428	178	(1,534)	211	CJG-2, P3
Capacity	(942)	(961)	(990)	(1,140)	(1,269)	(2,689)	CJG-2, P3
NH RPS	5,732	2,314	2,286	1,874	1,810	1,990	CJG-2, P3
Seabrook costs / (credits)	-	-	-	-	-	-	
Vermont Yankee	0	3	1	-	-	-	
RGGI costs	96	109	32	3	-	9	CJG-2, P3
IPP costs (*)	790	499	620	795	640	641	CJG-2, P3
Burgess BioPower	2,857	2,304	3,545	2,247	3,219	3,124	CJG-2, P3
Purchases and sales (inc. Congestion and Loss Adj.)	6,449	4,749	7,201	4,711	3,252	4,690	CJG-2, P3
Return on ES Deferral	26	26	27	34	37	34	
2016 Actual ES under recovery	14,153						
Total Energy Service Cost	$ 45,852	$ 25,277	$ 27,281	$ 26,571	$ 20,522	$ 21,281	
Total Energy Service Revenue at 9.45 cents/kwh	$ 31,732	$ 25,122	$ 26,234	$ 22,361	$ 21,594	$ 23,744	
ES Under/(Over) Recovery	14,120	155	1,047	4,210	(1,072)	(2,463)	
Forecasted Retail MWH Sales	340,041	263,673	279,703	236,621	228,506	251,256	
Energy Service Cost - cents per kwh	13.48	9.59	9.75	11.23	8.98	8.47	

(*) The IPP costs represent the forecasted market value of IPP generation.

Amounts shown above may not add due to rounding.

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE D/B/A EVERSOURCE ENERGY
2017 ENERGY SERVICE RATE CALCULATION
RATE EFFECTIVE JULY 1, 2017
(Dollars in 000s)

<u>**Energy Service Cost**</u>	July 2017 Estimate	August 2017 Estimate	September 2017 Estimate	October 2017 Estimate	November 2017 Estimate	December 2017 Estimate	Total	Reference
Fossil energy costs	$ 1,403	$ 1,005	$ 1,191	$ 1,005	$ 972	$ 5,206	$ 24,037	CJG-2, P3
F/H O&M, depreciation & taxes	9,210	8,742	8,665	8,985	8,114	9,113	109,027	CJG-2, P5
Return on rate base	3,702	3,638	3,620	3,599	3,576	3,571	44,003	CJG-2, P6
ISO-NE ancillary	217	212	142	122	112	181	1,077	CJG-2, P3
Capacity	(2,421)	(2,462)	(2,857)	(3,124)	(2,686)	(2,330)	(23,873)	CJG-2, P3
NH RPS	2,350	2,321	1,883	1,827	1,974	2,432	28,792	CJG-2, P3
Seabrook costs / (credits)	-	-	-	-	-	-	-	
Vermont Yankee	-	-	-	-	-	-	5	
RGGI costs	15	-	7	-	-	227	498	CJG-2, P3
IPP costs (*)	769	689	553	743	868	1,282	8,889	CJG-2, P3
Burgess BioPower	3,219	3,219	3,124	2,270	3,124	3,219	35,472	CJG-2, P3
Purchases and sales (inc. Congestion and Loss Adj.)	8,187	7,949	4,820	4,662	5,595	5,632	67,896	CJG-2, P3
Return on ES Deferral	29	23	17	12	6	1	272	
2016 Actual ES under recovery							14,153	
Total Energy Service Cost	$ 26,679	$ 25,334	$ 21,164	$ 20,100	$ 21,654	$ 28,535	$ 310,250	
Total Energy Service Revenue at 9.45 cents/kwh	$ 28,033	$ 27,692	$ 22,464	$ 21,803	$ 23,554	$ 29,015	$ 303,347	
ES Under/(Over) Recovery	(1,354)	(2,358)	(1,299)	(1,703)	(1,899)	(480)	$ 6,903	
Forecasted Retail MWH Sales	296,644	293,036	237,712	230,718	249,244	307,039	3,214,193	
Energy Service Cost - cents per kwh	8.99	8.65	8.90	8.71	8.69	9.29	9.65	

(*) The IPP costs represent the forecasted market value of IPP generation.

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PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE D/B/A EVERSOURCE ENERGY
2017 ENERGY SERVICE RATE CALCULATION
RATE EFFECTIVE JULY 1, 2017

PSNH Generation (GWh) and Expense ($000)
IPP's Priced at Market Rate

		Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Total
Hydro:		30.536	25.810	36.939	41.336	37.156	29.207	22.833	18.681	14.963	22.736	30.128	31.364	341.688
Coal:		42.955	49.862	11.567	0.696	0.000	2.478	3.098	0.000	1.239	0.000	0.000	81.640	193.535
	$	2,553	3,125	1,061	1,155	0	137	172	0	70	0	0	4,202	12,476
Wood:		26.259	25.430	27.849	7.410	28.473	27.554	28.473	28.473	27.554	28.473	27.554	28.473	311.976
	$	1,325	1,341	1,470	405	1,555	1,504	1,555	1,555	1,504	1,555	1,504	1,555	16,827
	$	(519)	(509)	(539)	(143)	(550)	(532)	(550)	(550)	(532)	(550)	(532)	(550)	(6,058)
IC/Jets		0.088	0.110	0.051	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.249
	$	23	31	17	0	0	0	0	0	0	0	0	0	71
Newington:		(1.089)	(0.647)	(1.093)	0.000	0.000	0.000	3.040	0.000	1.900	0.000	0.000	0.000	2.111
	$	122	105	119	0	0	0	226	0	149	0	0	0	721
IPP's:		19.002	15.137	17.113	25.287	21.938	17.860	17.627	15.929	13.682	18.466	19.170	21.370	222.581
	$	738	447	569	719	564	490	619	539	396	524	649	1,064	7,318
	$	52	52	52	76	75	151	150	150	157	219	219	218	1,571
Burgess BioPower		45.022	36.758	48.835	29.929	44.696	43.254	44.696	44.696	43.254	30.278	43.254	44.696	499.367
	$	2,579	2,026	3,268	1,969	2,941	2,846	2,941	2,941	2,846	1,992	2,846	2,941	32,137
	$	278	278	278	278	278	278	278	278	278	278	278	278	3,334
Contract Purchases		5.726	5.690	8.894	5.642	4.549	4.037	3.195	2.740	3.320	5.606	6.300	5.991	61.691
	$	825	863	1,109	296	239	212	168	144	174	294	331	315	4,969
	$	25	25	25	17	17	16	16	16	17	44	44	44	306
Energy Purchases		181.708	169.165	175.287	140.358	105.249	141.771	191.280	199.901	145.901	138.846	137.623	139.452	1,866.542
	$	7,324	5,449	6,830	4,356	2,941	4,415	7,939	7,740	4,588	4,283	5,147	6,820	67,832
Energy Sales		(39.204)	(48.831)	(26.878)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	(27.733)	(142.646)
	$	(1,724)	(1,589)	(763)	0	0	0	0	0	0	0	0	(1,786)	(5,862)
Congestion and Loss Adjustment	$	0	0	0	42	55	48	64	49	40	40	73	240	651
Total Energy GWH		311.003	278.484	298.564	250.658	242.061	266.161	314.242	310.419	251.813	244.404	264.030	325.253	3,357.093
Total Energy Expense	$	13,601	11,645	13,495	9,170	8,115	9,565	13,578	12,861	9,688	8,679	10,559	15,339	136,294
ISO-NE Ancillary	$	315	492	428	178	(1,534)	211	217	212	142	122	112	181	1,077
NH RPS	$	5,732	2,314	2,286	1,874	1,810	1,990	2,350	2,321	1,883	1,827	1,974	2,432	28,792
RGGI Costs	$	96	109	32	3	0	9	15	0	7	0	0	227	498
Capacity (sold)/bought MW-mo		(338)	(342)	(351)	(410)	(459)	(406)	(366)	(373)	(414)	(453)	(391)	(340)	(4,642)
Capacity (sold)/bought Cost ($000)	$	(942)	(961)	(990)	(1,140)	(1,269)	(2,689)	(2,421)	(2,462)	(2,857)	(3,124)	(2,686)	(2,330)	(23,873)

Amounts shown above may not add due to rounding.

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE D/B/A EVERSOURCE ENERGY
2017 ENERGY SERVICE RATE CALCULATION
RATE EFFECTIVE JULY 1, 2017

Forecasted PSNH IPP Market Value - April - December 2017

Month	IPP GWh	IPP Energy at Mkt Value ($000)	Capacity MW	ICAP Value $/kw-mo	ICAP ($000)	Total ($000)	Total $/MWh
April	25.287	719	27.3	2.78	76	795	31.44
May	21.938	564	27.3	2.77	75	640	29.16
June	17.860	490	22.7	6.63	151	641	35.89
July	17.627	619	22.7	6.61	150	769	43.63
August	15.929	539	22.7	6.60	150	689	43.25
September	13.682	396	22.7	6.90	157	553	40.40
October	18.466	524	31.8	6.89	219	743	40.25
November	19.170	649	31.8	6.87	219	868	45.27
December	21.370	1,064	31.8	6.86	218	1,282	60.00
Total	171.329	5,564			1,415	6,980	40.74

Amounts shown above may not add due to rounding.

Docket No. DE 16-822
Dated: 05/09/2017
Attachment CJG-2
Page 5

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE D/B/A EVERSOURCE ENERGY
2017 ENERGY SERVICE RATE CALCULATION
Fossil / Hydro O&M, Depreciation & Taxes Detail
RATE EFFECTIVE JULY 1, 2017
(Dollars in 000s)

Fossil / Hydro O&M, Depr. & Taxes	January 2017 Actual	February 2017 Actual	March 2017 Actual	April 2017 Estimate	May 2017 Estimate	June 2017 Estimate	July 2017 Estimate	August 2017 Estimate	September 2017 Estimate	October 2017 Estimate	November 2017 Estimate	December 2017 Estimate	Total
F/H Operation & Maintenance Cost	$ 5,899	$ 5,189	$ 5,379	$ 9,856	$ 6,705	$ 5,482	$ 6,176	$ 5,803	$ 5,741	$ 6,022	$ 5,198	$ 6,197	$ 73,647
F/H Depreciation Cost	2,073	2,076	2,077	2,077	2,077	2,077	2,075	2,069	2,062	2,062	2,062	2,062	24,847
F/H Property Taxes	922	425	572	671	671	671	671	671	671	671	671	671	7,960
F/H Payroll and Other Taxes	177	172	179	77	182	159	227	138	130	168	121	121	1,851
Amort. of Asset Retirement Obligation	58	58	58	60	60	60	61	61	61	62	62	62	724
Total F/H O&M, Depr. and Taxes	$ 9,129	$ 7,920	$ 8,266	$ 12,741	$ 9,695	$ 8,449	$ 9,210	$ 8,742	$ 8,665	$ 8,985	$ 8,114	$ 9,113	$ 109,027

Amounts shown above may not add due to rounding.

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE D/B/A EVERSOURCE ENERGY
2017 ENERGY SERVICE RATE CALCULATION
FOSSIL/HYDRO RETURN ON RATE BASE
RATE EFFECTIVE JULY 1, 2017
(Dollars in 000s)

Line	Return on Rate Base	January 2017 Actual	February 2017 Actual	March 2017 Actual	April 2017 Estimate	May 2017 Estimate	June 2017 Estimate	July 2017 Estimate	August 2017 Estimate	September 2017 Estimate	October 2017 Estimate	November 2017 Estimate	December 2017 Estimate	Total
15	Rate base													
16	Net Plant	289,781	291,079	292,376	287,861	289,158	290,455	280,685	279,016	277,334	275,692	274,031	275,329	
18	Working Capital Allow. (45 days of O&M)	9,364	9,364	9,364	9,364	9,364	9,364	9,364	9,364	9,364	9,364	9,364	9,364	
19	Fossil Fuel Inventory	99,864	99,864	99,864	98,311	98,311	98,311	98,311	98,311	98,311	98,311	98,311	98,311	
20	Mat'ls and Supplies	62,590	62,590	62,590	62,590	62,590	62,590	62,590	62,590	62,590	62,590	62,590	62,590	
21	Prepayments	1,724	1,724	1,724	1,724	1,724	1,724	1,724	1,724	1,724	1,724	1,724	1,724	
22	Deferred Taxes	(48,091)	(48,483)	(48,875)	(44,708)	(43,912)	(47,159)	(47,120)	(46,333)	(45,591)	(45,450)	(44,260)	(44,651)	
23	Other Regulatory Obligations	(18,921)	(18,921)	(18,921)	(26,319)	(28,007)	(17,098)	(18,599)	(20,100)	(20,512)	(22,014)	(23,516)	(23,516)	
24	Total Rate Base (L15 thru L22)	396,311	397,217	398,122	388,823	389,228	398,187	386,955	384,572	383,220	380,217	378,244	379,151	
26	Average Rate Base (prev + curr month)	398,406	396,764	397,669	393,472	389,025	393,707	392,571	385,763	383,896	381,718	379,230	378,697	
27	x Return	0.9395%	0.9395%	0.9395%	0.9430%	0.9430%	0.9430%	0.9430%	0.9430%	0.9430%	0.9430%	0.9430%	0.9430%	
28	Return (L25 x L26)	$ 3,743	$ 3,728	$ 3,736	$ 3,710	$ 3,668	$ 3,712	$ 3,702	$ 3,638	$ 3,620	$ 3,599	$ 3,576	$ 3,571	$ 44,003